



**T**he role of well-designed and cost effective automation solutions has been enhanced in contemporary industrial production processes.

In automation system implementation, we strive for optimally functioning processes, user-friendliness, low life-cycle operational costs, extendibility, openness and compatibility with existing systems. Our extensive experience and know-how enable us to choose the most viable components and most applicable software programs thereby ensuring that these goals are reached.

**All Process Automation Design and Implementation Services**

Elomatic offers workable and comprehensive automation solutions. Process-, electrical-, automation and information system design are all conducted under the same roof and function as a smooth unit. Our experience gained through years of delivering demanding projects and our ISO9001/2000 integrated management system have refined our working methods, making them more effective and geared towards eliminating errors.

**Reliable and Knowledgeable Partner**

We want to offer our customers high-class and efficient design and project management services for automation. We are able to handle the most complex production automation and we are familiar with different industrial requirements. Our design personnel have among others completed work safety and foodstuff hygiene training and we have extensive experience of GAMP, 21CFR Part 11, ATEX specifications as well as machine safety specifications such as CE labelling criteria.

We have implemented many demanding system deliveries as well as modernisations and extensions for both domestic and international clients. We have strong experience in particular for the bio and pharmaceutical-, food and beverage-, process- and chemical industries.

**Familiar and Reliable Components and Systems**

We implement automation data acquisition and reporting systems using familiar components and systems. Our system choices are always based on the customer's requirements and we use only reliable suppliers' quality products.

We have special experience in using *Siemens PCS7* (we are a Siemens Solution Provider), *Honeywell TPA*, *Emerson Delta V* and *Metso DNA* automation systems. We are particularly familiar with *Siemens Simatic-*, *Omnron*- and *Mitsubishi* programmable logic controllers as well as *Siemens WinCC-*, *Wonderware InTouch-* and *GE Fanuc iFix* control rooms and fieldbus systems such as *Ethernet*, *Industrial Ethernet*, *Profibus DP and PA*, *Foundation Fieldbus*, *Interbus* and *AS-i*.

**Accurate and Clear Documentation Important in Automation Projects**

We have modern design software, databases, application developers and project management tools at our disposal. Documentation clarity and systematic working methods are crucial for successful project follow-through and throughout the whole life cycle of technical investments. In our design work we use our in-house document management system called Elodoc. It strengthens project follow-through and adds value to plant maintenance and later alteration or updating projects.

**Automation System Life Cycle Supplier**

Our electrical automation design covers the entire investment lifecycle. We supply our customers with electrical automation design-, installation- and maintenance services either as turnkey or standalone services. In detailed design we also produce documents for fieldbus and other electrical systems. We implement application programs in cooperation with our electrical and instrumentation teams. For the planning, manufacturing, installation and testing of the main and supplementary control units, we rely on our capable partner network. We can also offer our customers diverse production process maintenance services.



### 1. Preliminary Design and Project Management

Once the automation investment decision has been made it is important that the project is immediately placed in capable hands. Elomatic conducts the necessary feasibility studies, evaluates different process and automation system options and selects the most appropriate machinery, devices and best suppliers. We create project plans, schedules and take care of project implementation from beginning to end so that our customers can concentrate on their own work.

### 2. Automation Design

All the machinery and devices in the production process have to work seamlessly together. Material flows need to be directed to the right places at the right time and the product quality needs to be excellent at all times. Elomatic is familiar with JOT demands for efficient production and benefits from this knowledge in automation design.

Our experienced designers are familiar with all automation technologies, can handle complex systems and are capable of integrating production control devices, information management systems and machinery into an optimally working unit.

### 3. Electrical Design

The production process and its machinery require a reliable electrical distribution grid in order to operate properly. We dimension every cable with the help of our grid measurement- and short circuit calculation programs. The electrical distribution grid dimensions have to be optimal to ensure that the required power can be transferred to machinery at the lowest construction and operational costs. We design a reliable and working grid solution where possible electrical distribution problem situations have been taken into consideration. A reliable electrical distribution grid requires a backup system in the form of an accumulator battery or generator.

The effective illumination of production areas is also an essential part of the production process functioning. Well chosen and dimensioned lighting improves work safety, work efficiency and the pleasantness of the working environment.

### 4. Instrumentation Design

All functioning processes require the taking of different measurements and the control of regulating units and valves. Thanks to our thirty years of experience we know different processes' special features and we are able to choose the right components to match them. Successfully implemented instrumentation reduces disturbances and improves process efficiency.

### 5. Data Acquisition and Reporting

Reliable and fast data acquisition and efficient control allows for quick and accurate reaction to different process situations. The process monitorability, predictability and overall management require an effective database-centric data acquisition and reporting system. We can implement a fully comprehensive MES-level solution for our clients that includes all device dimensioning, production, material and resource management, quality control and maintenance. We can also integrate new processes into existing production control (MES) and ERP systems. Common interfaces (eg. XML, ODBC and OPC) and standard routing are the basis on which different systems and software are integrated. This results in a seamless and complementary solution for logistic and production management.

New pharmaceutical and foodstuff authority regulations regarding traceability and product safety emphasize the importance of precise, timely and well directed data acquisition and handling. The company's different user groups have their own information format requirements and as such the information handling and processing have to be fast, versatile and flexible.

### 6. Start-up and Maintenance Services

The production process is ready only once everything works properly as planned and production is running at full capacity.

Elomatic also offers consultation and supervision services for new process start-ups and maintenance planning services for plant production and automation as well as services for project documentation updates and upkeep. These services ensure that our customers can always be sure of their process functioning and reliability.



### Elomatic Offers Diverse Automation Expertise

All our designers are experienced professionals who have the latest know-how and best design tools at their disposal. We find the optimal solutions in cooperation with our customers. When you need a capable and knowledgeable automation expert, contact us.



Itäinen Rantakatu 72  
20810 Turku, Finland  
tel. +358 2 412 411

Kangasvuorentie 10  
40320 Jyväskylä, Finland  
tel. +358 14 4467 111